

What Is Claimed Is:

1. A driving thin film transistor for an active matrix type organic light emitting diode (AMOLED) device having first and second electrodes spaced apart from each other and an organic light emitting layer disposed between the first and second electrodes, comprising:

a gate electrode on a substrate;

a semiconductor layer over the gate electrode; and

source and drain electrodes on the semiconductor layer, wherein the source and drain electrodes are spaced apart from each other and respectively overlap portions of the gate electrode, and an overlapping area between the gate electrode and the source electrode is larger than an overlapping area between the gate electrode and the drain electrode.

2. The driving thin film transistor according to claim 1, further comprising an insulating layer between the gate electrode and the semiconductor layer.

3. The driving thin film transistor according to claim 1, wherein the overlapping area between the gate electrode and the source electrode forms a storage capacitor for driving a pixel.

4. The driving thin film transistor according to claim 1, wherein the semiconductor layer has an active layer and an ohmic contact layer.

5. The driving thin film transistor according to claim 4, wherein the active layer is formed of amorphous silicon, and the ohmic contact layer is formed of doped amorphous silicon.

6. The driving thin film transistor according to claim 4, wherein the ohmic contact layer has a portion exposing a part of the active layer.

7. A method of fabricating a driving thin film transistor for an active matrix type organic light emitting diode (AMOLED) device having first and second electrodes spaced apart from each

other and an organic light emitting layer disposed between the first and second electrodes, comprising:

forming a gate electrode on a substrate;

forming a semiconductor layer over the gate electrode; and

forming source and drain electrodes on the semiconductor layer, wherein the source and drain electrodes are spaced apart from each other and respectively overlap portions of the gate electrode, and an overlapping area between the gate electrode and the source electrode is larger than an overlapping area between the gate electrode and the drain electrode.

8. The method according to claim 7, further comprising forming an insulating layer between the gate electrode and the semiconductor layer.

9. The method according to claim 7, wherein the overlapping area between the gate electrode and the source electrode forms a storage capacitor for driving a pixel.

10. The method according to claim 7, wherein the semiconductor layer has an active layer and an ohmic contact layer.

11. The method according to claim 10, wherein the active layer is formed of amorphous silicon, and the ohmic contact layer is formed of doped amorphous silicon.

12. The method of claim 10, wherein the ohmic contact layer has a portion exposing a part of the active layer.

13. An active matrix type organic light emitting diode (AMOLED) device, comprising:

a gate electrode on a substrate;

a gate insulating layer on the substrate including the gate electrode;

a semiconductor layer on the gate insulating layer;

source and drain electrodes on the semiconductor layer,  
wherein the source and drain electrodes are spaced apart from

each other and respectively overlap portions of the gate electrode;

a passivation layer on the substrate to cover the source and drain electrodes, the passivation layer having a drain contact hole to expose a portion of the drain electrode;

a first electrode on the passivation layer, the first electrode being electrically connected to the drain electrode through the drain contact hole;

an organic light emitting layer on the first electrode; and

a second electrode on the organic light emitting layer, wherein an overlapping area between the gate electrode and the source electrode is larger than an overlapping area between the gate electrode and the drain electrode.

14. The device according to claim 13, wherein the overlapping area between the gate electrode and the source electrode forms a storage capacitor for driving a pixel.

15. The device according to claim 13, further comprising a switching thin film transistor electrically connected to the gate electrode.

16. The device according to claim 13, wherein the active matrix type organic light emitting diode (AMOLED) device is an upward emitting type active matrix organic light emitting diode (AMOLED) device.

17. The device according to claim 13, wherein the active matrix type organic light emitting diode (AMOLED) device is a downward emitting type active matrix organic light emitting diode (AMOLED) device.

18. A method of fabricating an active matrix type organic light emitting diode (AMOLED) device, comprising:

forming a gate electrode on a substrate;

forming a gate insulating layer on the substrate including the gate electrode;

forming a semiconductor layer on the gate insulating layer;

forming source and drain electrodes on the semiconductor layer, wherein the source and drain electrodes are spaced apart from each other and respectively overlap portions of the gate electrode;

forming a passivation layer on the substrate to cover the source and drain electrodes, the passivation layer having a drain contact hole to expose a portion of the drain electrode;

forming a first electrode on the passivation layer, the first electrode being electrically connected to the drain electrode through the drain contact hole;

forming an organic light emitting layer on the first electrode; and

forming a second electrode on the organic light emitting layer, wherein an overlapping area between the gate electrode and the source electrode is larger than an overlapping area between the gate electrode and the drain electrode.

19. The method according to claim 18, wherein the overlapping area between the gate electrode and the source electrode forms a storage capacitor for driving a pixel.

20. The method according to claim 18, further comprising forming a switching thin film transistor electrically connected to the gate electrode.

21. The method according to claim 18, wherein the active matrix type organic light emitting diode (AMOLED) device is an upward emitting type active matrix organic light emitting diode (AMOLED) device.

22. The method according to claim 18, wherein the active matrix type organic light emitting diode (AMOLED) device is a downward emitting type active matrix organic light emitting diode (AMOLED) device.